# Monthly Precipitation Grids for Alaska, British Columbia, and Yukon – 1961-2009

Stavros Calos[1]
David F. Hill[2]

**Contents**: 588 esri grid format files (.asc) with cumulative monthly precipitation estimates covering Alaska, British Columbia, and Yukon.
**Resolution**: 2km x 2 km grid cells.
**Units**: hundredths of mm
**Projection information**: Albers Equal Area Conic

NAD_1983_Albers
Projection: Albers
False_Easting: 0.000000
False_Northing: 0.000000
Central_Meridian: -154.000000
Standard_Parallel_1: 55.000000
Standard_Parallel_2: 65.000000
Latitude_Of_Origin: 50.000000
Linear Unit: Meter
GCS_North_American_1983
Datum: D_North_American_1983

**Grid Extent**:

ncols 2656
nrows 1351
xllcorner -2305066.118143
yllcorner 54595.150471
cellsize 2000.000000
NODATA_value -9999

**Grid Processing Explanation:**

Grids were created by resampling PRISM monthly precipitation norms between 1971-2000 (for Alaska) and 1961-1990 (for British Columbia and Yukon) from a resolution of 771 m to a resolution of 2 km. The resampled climatic norm grids were then merged for each calendar month. Proportional anomalies, or the ratio between measured monthly precipitation and the PRISM monthly norm at that location, were calculated for each month between 1/1961 and 12/2009 at Alaskan and Canadian weather station locations. Anomalies were interpolated over the entire grid extent using a splines with tension approach (tension = 0.8). Gridded monthly anomalies were then multiplied by the PRISM norm to create a gridded estimate of total monthly precipitation in the region for all months between 1/1961 and 12/2009.

A database of 700 weather stations was used to generate monthly anomalies. On average, 245 of these stations reported data per month between 1961 and 2009. Each station used has at least 36 months of (not necessarily consecutive) data within this period.

Stavros Calos[1]
Research Assistant – Oregon State University
Stavros.calos@gmail.com

David F. Hill[2]
Associate Professor
School of Civil and Construction Engineering
Oregon State University
207 Owen Hall
Corvallis, OR 97330
541.737.4939 (ph)
541.737.3052 (fx)
dfh@engr.oregonstate.edu